

FORM PTO-1449 U.S. Department of Commerce
Patent and Trademark Office

Attorney Docket Number
5470.378

Serial No.
10/672,501

LIST OF DOCUMENTS CITED BY APPLICANT

(Use several sheets if necessary)

Applicants: Kole

Filing Date: September 26, 2003

Group
1645

U. S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation Yes No
<i>RA</i>	1. WO 01/79853	October 25, 2001	PCT	<u> </u>	<u> </u>	
<i>RA</i>	2. WO 00/67580	November 16, 2000	PCT	<u> </u>	<u> </u>	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

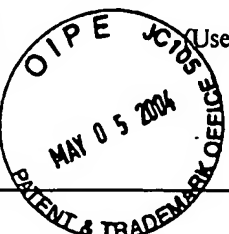
<i>RA</i>	3. International Search Report corresponding to PCT/US03/30423, filed May 28, 2004
-----------	--

EXAMINER
*EXAMINER

HORLICK

DATE CONSIDERED 12/19/05

Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office				Attorney Docket Number 5470.378		Serial No. 10/672,501	
LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)				Applicants: Kole			
				Filing Date: September 26, 2003		Group 1645	
U. S. PATENT DOCUMENTS							
Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate	
RJA	1.	5,023,243	06/11/91	Tullis	—		
RJA	2.	5,149,797	09/22/92	Pederson et al.	—		
RJA	3.	5,220,007	06/15/93	Pederson et al.	—		
FOREIGN PATENT DOCUMENTS							
Document Number	Date	Country	Class	Subclass	Translation Yes No		
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
RJA	4.	"Antisense Used to Correct Genetic Defect" <i>Nature Biotechnology</i> 14:1637 (1996)					
	5.	Baudys et al. "Stabilization and Intestinal Absorption of Human Calcitonin" <i>Journal of Controlled Release</i> 39:145-151 (1996)					
	6.	Bennett "Antisense Research" <i>Science</i> 271:434 (1996)					
	7.	Bennett et al. "Cationic Lipids Enhance Cellular Uptake and Activity of Phosphorothioate Antisense Oligonucleotides" <i>Molecular Pharmacology</i> 41(6):1023-1033 (1992)					
	8.	DeLong et al. "Novel Cationic Amphiphiles as Delivery Agents for Antisense Oligonucleotides" <i>Nucleic Acids Research</i> 27(16):3334-3341 (1999)					
	9.	Dobkin and Bank "Reversibility of IVS 2 Missplicing in a Mutant Human β -Globin Gene" <i>The Journal of Biological Chemistry</i> 260(30):16332-16337 (1985)					
	10.	Dominski and Kole "Cooperation of Pre-mRNA Sequence Elements in Splice Site Selection" <i>Molecular and Cellular Biology</i> 12(5):2108-2114 (1992)					
	11.	Dominski and Kole "Identification and Characterization by Antisense Oligonucleotides of Exon and Intron Sequences Required for Splicing" <i>Molecular and Cellular Biology</i> 14(11): 7445-7454 (1994)					
RJA	12.	Dominski and Kole "Identification of Exon Sequences Involved in Splice Site Selection" <i>Journal of Biological Chemistry</i> 269(38):23590-23596 (1994)					
RJA	13.	Dominski and Kole "Restoration of Correct Splicing in Thalassemic Pre-mRNA by Antisense Oligonucleotides" <i>Proc. Natl. Acad. Sci.</i> 90:8673-8677 (1993)					
RJA	14.	Dominski and Kole "Selection of Splice Sites in Pre-mRNAs with Short Internal Exons" <i>Molecular and Cellular Biology</i> 11(12):6075-6083 (1991)					
RJA	15.	Friedman et al. "Correction of Aberrant Splicing of the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) Gene by Antisense Oligonucleotides" <i>Journal of Biological Chemistry</i> 274(51):36193-36199 (1999)					

EXAMINER
*EXAMINER~~SHUR LICK~~ HUR LICK

DATE CONSIDERED

12/19/05

Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. Department of Commerce
Patent and Trademark OfficeAttorney Docket Number
5470.378Serial No.
10/672,501

LIST OF DOCUMENTS CITED BY APPLICANT

(Use several sheets if necessary)

Applicants: Kole

Filing Date: September 26, 2003

Group
1645

16. Furdon and Kole "Inhibition of in Vitro pre-mRNA Splicing by Antisense Deoxyribonucleotide Analogues" *Journal of Cellular Biochemistry Suppl.* 130:#K210 (1989) (Abstract)
17. Furdon and Kole "The Length of the Downstream Exon and the Substitution of Specific Sequences Affect Pre-mRNA Splicing In Vitro" *Molecular and Cellular Biology* 8(2): 860-866 (1988)
18. Furdon et al. "RNase H Cleavage of RNA Hybridized to Oligonucleotides Containing Methylphosphonate, Phosphorothioate and Phosphodiester Bonds" *Nucleic Acids Research* 17(22):9192-9204 (1989)
19. Gorman et al. "Restoration of Correct Splicing of Thalassaemic B-Globin Pre-mRNA by Modified U1 snRNAs" *Journal of Biological Chemistry* 275(46):35914-35919 (2000)
20. Gorman et al. "Stable Alteration of Pre-mRNA Splicing Patterns by Modified U7 Small Nuclear RNAs" *Proc. Natl. Acad. Sci. USA* 95:4929-4934 (1998)
21. Gura "Antisense Has Growing Pains" *Science* 270:575-577 (1995)
22. Kole and Weissman "Accurate In Vitro Splicing of Human β -Globin RNA" *Nucleic Acids Research* 10(18):5429-5445 (1982)
23. Kole et al. "Pre-mRNA Splicing as a Target for Antisense Oligonucleotides" *Advanced Drug Delivery Reviews* 6:271-286 (1991)
24. Kulka et al. "Site Specificity of the Inhibitory Effects of Oligo (nucleoside Methylphosphonate)s Complementary to the Acceptor Splice Junction of Herpes Simplex Virus Type 1 Immediate Early mRNA 4" *Proc. Natl. Acad. Sci. USA* 86:6868-6872 (1989)
25. Lacerra et al. "Restoration of Hemoglobin A Synthesis in Erythroid Cells from Peripheral Blood of Thalassaemic Patients" *PNAS* 97(17):9591-9596 (2000)
26. Lewis et al. "A Common Human B Globin Splicing Mutation Modeled in Mice" *Blood* 91(6):2152-2156 (1998)
27. Mercatante et al. "Modification of Alternative Splicing of Bcl-x Pre-mRNA in Prostate and Breast Cancer Cells" *Journal of Biological Chemistry* 276(19):16411-16417 (2001)
28. Miller et al. "Gene Transfer and Antisense Nucleic Acid Techniques" *Parasitology Today* 10(3):92-97 (1994)
29. Milligan et al. "Current Concepts in Antisense Drug Design" *J. Medicinal Chemistry* 36(14):1923-1937 (1993)
30. Munroe "Antisense RNA Inhibits Splicing of Pre-mRNA In Vitro" *The EMBO Journal* 7(8):2523-2532 (1988)
31. Rapaport et al. "Antimalarial Activities of Oligodeoxynucleotide Phosphorothioates in Chloroquine-Resistant *Plasmodium falciparum*" *Proc. Natl. Acad. Sci. USA* 89:8577-8580 (1992)
32. Reed and Maniatis "Intron Sequences Involved in Lariat Formation during Pre-mRNA Splicing" *Cell* 41:95-101 (1985)
33. Rojanasakul "Antisense Oligonucleotide Therapeutics: Drug Delivery and Targeting" *Advanced Drug Delivery Reviews* 18:115-131 (1996)
34. Ruskin and Green "Specific and Stable Intron-Factor Interactions are Established Early During in Vitro Pre-mRNA Splicing" *Cell* 43:131-142 (1985)
35. Ryder et al. "Sequence-Specific Affinity Selection of Mammalian Splicing Complexes" *Nuc. Acids. Res.* 18(24):7373-7374 (1990)
36. Sazani and Kole "Therapeutic Potential of Antisense Oligonucleotides as Modulators of Alternative Splicing" *Journal of Clinical Investigation* 112(4):481-486 (2003)

EXAMINER
*EXAMINER

HURLICK

DATE CONSIDERED 12/19/05

Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 U.S. Department of Commerce
Patent and Trademark OfficeAttorney Docket Number
5470.378Serial No.
10/672,501

LIST OF DOCUMENTS CITED BY APPLICANT

(Use several sheets if necessary)

Applicants: Kole

Filing Date: September 26, 2003

Group
1645

- | | |
|-----|---|
| 37. | Schmajuk et al. "Antisense Oligonucleotides with Different Backbones" <i>Journal of Biological Chemistry</i> 274(31):21783-21789 (1999) |
| 38. | Sierakowska et al. "Antibodies to hnRNP Core Proteins Inhibit <i>In Vitro</i> Splicing of Human β -Globin Pre-mRNA" <i>Nucleic Acids Research</i> 14(3):5241-5254 (1986) |
| 39. | Sierakowska et al. "Inhibition of Pre-mRNA Splicing by 5-Fluoro-, 5-Chloro-, and 5-Bromouridine" <i>Journal of Biological Chemistry</i> 264(32):19185-19191 (1989) |
| 40. | Sierakowska et al. "Repair of Thalassemic Human B-Globin mRNA in Mammalian Cells by Antisense Oligonucleotides" <i>Proc. Natl. Acad. Sci. USA</i> 93:12840-12844 (1996) |
| 41. | Stein "Does Antisense Exist?" <i>Nature Medicine</i> 1:1119-1121 (1995) |
| 42. | Stein and Cheng "Antisense Oligonucleotides as Therapeutic Agents - Is the Bullet Really Magical?" <i>Science</i> 261:1001-1012 (1993) |
| 43. | Stull et al. "Antigene Ribozyme and Aptamer Nucleic Acid Drugs: Progress and Prospects" <i>Pharmaceutical Research</i> 12(4):465-483 (1995) |
| 44. | Suter et al. "Double-Target Antisense U7 snRNAs Promote Efficient Skipping of an Aberrant Exon in Three Human β -Thalassemic Mutations" <i>Human Molecular Genetics</i> 8(13):2415-2423 (1999) |
| 45. | Tian et al. "Selection of Novel Exon Recognition Elements from a Pool of Random Sequences" <i>Molecular and Cellular Biology</i> 15(11):6291-6298 (1995) |
| 46. | Tseng et al. "Antisense Oligonucleotide Technology in the Development of Cancer Therapeutics" <i>Cancer Gene Ther.</i> 1:65-71 (1994) |
| 47. | Uhlmann et al. "Antisense Oligonucleotides: A New Therapeutic Principle" <i>Chem. Rev.</i> 90:544-579 (1990) |
| 48. | Volloch et al. "Inhibition of Pre-mRNA Splicing by Antisense RRNA in Vitro: Effect of RNA Containing Sequences Complementary to Exons" <i>Biochemical and Biophysical Research Communications</i> 179(3):1593-1599 (1991) |
| 49. | Wagner "Gene Inhibition Using Antisense Oligodeoxynucleotides" <i>Nature</i> 372:333-335 (1994) |
| 50. | Wagner "The State of the Art in Antisense Research" <i>Nature Medicine</i> 1:1116-1118 (1995) |
| 51. | Weiss "Upping the Antisense Ante" <i>Science News</i> 139:108-109 (1991) |
| 52. | Westerman et al. "Inhibition of Expression of SV40 Virus Large T-Antigen by Antisense Oligodeoxyribonucleotides" <i>Biomed. Biochim. Acta.</i> 48:85-93 (1989) |
| 53. | Wu-Pong "Oligonucleotides: Opportunities for Drug Therapy Research" <i>Pharmaceutical Technology</i> 18:102-114 (1994) |
| 54. | Zhuang and Weiner "A Compensatory Base Change in Human U2 snRNA Can Suppress a Branch Site Mutation" <i>Genes & Development</i> 3(10):1545-1552 (1989) |

EXAMINER
*EXAMINER

HORLICK

DATE CONSIDERED 12/19/05

Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.